24000608

QP CODE: 24000608

Reg No : .....

Name : .....

B.Sc DEGREE (CBCS) REGULAR / REAPPEARANCE EXAMINATIONS, MARCH 2024

Sixth Semester

B.Sc Biotechnology Model III

CORE COURSE - BT6CRT16 - INDUSTRIAL BIOTECNOLOGY

2017 Admission Onwards

EE936184

Time: 3 Hours Max. Marks : 60

Part A

*Answer any **ten** questions.*

*Each question carries **1** mark.*

1. Write down the inventions of Chaim Weizmann.
2. Comment on two enzymes produced by bioprocess technology.
3. Define microbial screening.
4. Define protoplast fusion.
5. Define inoculation media.
6. Write down any two nitrogen sources used in fermentation medium .
7. Role of inducers and inhibitors in fermentation media.
8. Write about the basic functions of a bioreactor.
9. List out the general requirement of a bioreactor.
10. Comment the importance of using a sparger in a bioreactor.
11. Write any two uses of amylase.
12. Write any two methods of cell immobilization.

(10×1=10)

Part B

*Answer any **six** questions.*

*Each question carries **5** marks.*

13. Advantages of biological process over chemical process.

14. Explain the stages of wine production.

15. Write the importance of identification of selected organisms in industrial biotechnology.

16. Explain the importance of strain improvement in industrial biotechnology.

17. Discuss the effect of pH in fermentation.

18. Explain about the optimization of fermentation medium.

19. Illustrate the diagram of a CSTR.

20. Discuss on fermentative production of penicillin.

21. Describe how citric acid is produced in industrial scale.

(6×5=30)

Part C

*Answer any **two** questions.*

*Each question carries **10** marks.*

22. Explain the production of primary metabolites by fermentation.

23. Comment on the screening of industrially important microorganisms in detail.

24. Explain continuous fermentation.

25. Discuss on different chromatographic techniques used in DSP.

(2×10=20)